Acid Rain Program
Quarterly Report Review Process
for Determining Final Annual Data

The Acid Rain Program regulations (40CFR Part 75) require affected sources to submit quarterly data reports for their affected units to the EPA no later than 30 days following the end of each calendar quarter. Each report must be signed and certified by the source's Designated Representative (DR) or Alternate Designated Representative (ADR) for accuracy and completeness. This document describes the Quarterly Report Review Process the EPA uses to evaluate quarterly reports and determine the accepted emissions value for each affected source. These final data are used for allowance reconciliation and compliance determination, and are made available to the public.

All quarterly reports submitted to the EPA are entered into the Emissions Tracking System (ETS) which performs automated data processing. ETS is maintained on the EPA mainframe computer located in Research Triangle Park, NC. The majority of reports are electronically submitted directly to ETS using "ETS-PC," an EPA-developed software program.

The EPA's Quarterly Report Review Process consists of the following steps:

1. **Data Review** - All quarterly reports are analyzed to detect deficiencies and to identify reports that must be resubmitted to correct problems. The EPA also identifies reports that were not submitted by the appropriate reporting deadline.

2. **Data Resubmission** - Revised quarterly reports are obtained from sources by a specified deadline to correct deficiencies found during the Data Review process.

3. **Data Dissemination** - All data are reviewed and preliminary and final emissions data reports are prepared for public release and compliance determination.

These three primary activities are described below in further detail:

1. Data Review

The EPA's Data Review consists of four steps: Diskette Submission Review, Automated Quarterly Report Rejection Criteria Review, Automated Quarterly Report Critical Error Review, and Additional Quarterly Report Audits. These steps are described below:

A) Diskette Submission Review - The number of quarterly reports submitted on diskettes represents a small percentage of the total number of quarterly reports submitted to the EPA. Reports submitted on diskette must be accompanied by a letter containing certification statements signed by the DR or ADR. Diskette reports are examined and must pass the following rejection criteria (specific to diskette submissions) before they can be transmitted to the EPA mainframe for further automated analysis:

   1) All reports contained on a diskette must be resubmitted if the diskette is found to contain a computer virus.
   2) All reports contained on a diskette must be resubmitted if the diskette is unreadable (e.g., physically damaged).
   3) All reports contained on a diskette in a compressed (*. ZIP) file or self-extracting (*.EXE)

compressed file must be resubmitted if the EPA cannot successfully "decompress" the report.

4) Any report contained on a diskette must be resubmitted if the report is unreadable (e.g., wrong file format or corrupted) or missing.
5) Any report contained on a diskette must be resubmitted if the report contains two or more units that are not associated through their stack configuration.
6) Any report for a common or multiple stack configuration (including associated units), contained on a diskette must be resubmitted if the same unit or stack is contained in more than one report. The stack(s) and associated unit-level data must be contained in a single report.

The EPA will reject a diskette report if it fails any of these criteria and will notify the source by telephone that the report must be resubmitted by a stated deadline (typically within five calendar days after the telephone call). On the other hand, if a diskette report passes these criteria, the EPA will transmit it to the ETS for automated review.

B) *Automated Quarterly Report Rejection Criteria Review* - All reports submitted to ETS on the EPA mainframe are first tested against automated rejection criteria. These criteria determine whether a quarterly report is basically complete and internally consistent according to Part 75 reporting requirements, including the record types (RT) described in the Electronic Data Reporting Format (EDR), versions 1.3, 2.0, and 2.1. The EPA will reject a report if it fails any of the rejection criteria, and will inform the source that the report must be corrected and resubmitted (for tracking purposes, ETS assigns a Status Code of '6' to a rejected report).

Sources using ETS-PC to electronically submit reports to the EPA receive "instant feedback" containing the results from this automated review. After reviewing the feedback, the source may revise the report and resubmit it prior to the submission deadline. If a report is rejected (Status Code 6), the feedback states that the source must correct and resubmit the report to the EPA no later than 30 days from the date of the feedback (see Section 2. Data Resubmission). Sources using ETS-PC have the option of submitting a file numerous times before the submission deadline.

For a report submitted on diskette, the EPA provides the feedback in a letter to the DR approximately 20 days after the submission deadline. The letter will notify the DR of any rejected reports and will request that rejected reports be corrected and resubmitted no later than 30 days after the date of the letter (see Section 2. Data Resubmission). The DR may electronically resubmit the report using ETS-PC instead of resubmitting it on a diskette.

The following rejection criteria are applied during this automated review:

1) Does the report contain a facility identification record (RT100)?
2) Does the report contain only one facility identification record (RT100)?
3) Is the facility identification record (RT100) the first record in the report?
4) Is the plant code (ORISPL) in RT100 contained in the EPA's database of valid ORISPL codes?
5) Are the calendar year and/or quarter in RT100 correct?
6) Are all Unit IDs and/or Stack IDs in the report found in the EPA's database of valid IDs for the plant code (ORISPL)?
7) Does the report contain basic monitoring plan data (RT502 or RT503) for each unit and stack present in the report?
8) Is there a Unit Definition Record (RT502) for each unit ID contained in the report, and is there a Stack/Pipe Header Definition Record (RT503) for each Stack or Pipe ID contained in the report except for reports containing only nonoperational units or stacks?

9) Is there at least one of the following for each operating unit (defined in RT502) or stack/pipe (defined in RT503) in the report: emissions data (RT2xx or RT3xx), QA/QC test data and results (RT6xx), or operating data (RT300)?
10) Is there a summary emissions data record (RT301) for each unit, stack, or pipe reported in the report?
11) Does the Unit/Stack/Pipe ID specified in the ETS mainframe filename appear in the report?
12) Does the report contain only ASCII or EBCDIC-compliant characters (except for RTs 520, 550, 555, and 900/901/910)?
13) Do all records in the report begin with a valid record type code, as defined in EDR v1.3, v2.0, or v2.1?
14) Are SO_2 (RTs 310, 313, 314), CO_2 (RTs 330, 331) and NO_X (RTs 320, 323, 324) present in the file?
15) Does the sum of the hourly records for CO_2 (RT330) multiplied by the operating time (RT300) equal the total quarterly CO_2 tons reported in RT 301?
16) Does the quarterly average NO_x rate calculated from the hourly records for NO_x (RT 320, 323, 324 and/or 325) equal the reported quarterly average NO_x rate reported in RT301?
17) Are the Bias Adjustment Factors for SO_2 (RT200), Flow (RT220), and NO_x (RT320) greater than or equal to 1.00?
18) Is every hour of CO_2 mass emissions (RT 330) less than 9999 tons?
19) Is every hour of Heat Input Rate (RT 300) less than 99999 mmBtu/hour?
20) Do the concentration (2XX) and mass emission (3XX) record types contain only positive emission values?

A report that passes the automated rejection criteria will next undergo an automated critical error review, described below.

C) *Automated Quarterly Report Critical Error Review* - Each report that passes the automated rejection criteria then undergoes a second level of automated ETS software checks to detect critical errors. A report that fails any one of these checks is assigned a "Critical Error" status (Status Code 5) within ETS. In such a case the EPA will inform the source that the report contains critical errors that must be corrected and the file resubmitted (as defined in Section 2. Data Resubmission).

Sources submitting their reports using ETS-PC will immediately receive the results from this automated critical error review in their feedback. After reviewing the feedback, the source may revise the report and resubmit it prior to the submission deadline. For a report submitted on a diskette, the source's DR will receive a feedback letter containing these results approximately 20 days after the report submission deadline. The DR may electronically resubmit the report using ETS-PC instead of resubmitting it on a diskette.

The following critical error criteria are applied during this automated review:

1) Does the sum of the hourly records for SO_2 (RTs 310, 313, and 314) multiplied by the operating time (RT300) equal the total quarterly SO_2 tons reported in RT 301?
2) Does the sum of the hourly records for Heat Input (RT300) multiplied by the operating time (RT300) equal the total quarterly Heat Input reported in RT301?
3) Are the appropriate hourly emissions (RT 302/313 and/or 303/314) present for an Appendix D unit?
4) Is the cumulative annual average NO_X emission rate reported in RT 301 less than 3.00 lb/mmBtu?
5) Are the cumulative annual SO_2 tons emitted reported in RT 301 less than 180,000 tons?
6) Is every hour of SO_2 mass emissions (RT 310, 313, and/or 314) less than 50,000 tons?
7) Is every hour of average NO_X emissions rate (RT 320, 323, 324, and/or 325) less than 4.00 lb/mmBtu?

8) Is the EPA Accepted Value equal to the Cumulative Annual Value for SO_2, CO_2, NO_X, and Heat Input?
9) Is the sum of the hourly NO_X Mass emissions reported in RT 360 less than or equal to 50 tons?
10) Is the sum of the hourly SO_2 emissions reported in RT 360 less than or equal to 25 tons?
11) Do all hourly emissions data reported in the file fall within the current submission quarter?
12) Are the proper program indicators being reported for each unit in RT 505?
13) Is the fuel type reported in RT 585 appropriate for a Low Mass Emmisions (LME) Unit ?
14) Is there a RT 585 for each pollutant (SO2, CO_2, and NO_X Rate)and heat input present in the file?

After the critical error review, the report then undergoes a final level of ETS software checks to detect other types of errors and inconsistencies ("educational errors"). Results from this final analysis are also included in the ETS feedback provided to the DR. ETS generates messages to describe the educational errors (if any) detected in the report and assigns a "Quarterly Report Contains Educational Errors" status (Status Code 9). The DR may then revise the report to correct educational errors and resubmit it to the EPA prior to the submission deadline. The DR must also ensure that such errors are corrected so they do not occur in subsequent quarterly reports.

As part of ongoing Quality Assurance (QA) activities, the EPA expects to incorporate certain educational errors into the set of critical error criteria (Status Code 5) or incorporate some educational errors or critical error criteria into the set of rejection criteria (Status Code 6). In other words, errors which are currently identified by ETS for the source to correct in future submissions may become errors which the source must correct before the quarterly report containing the specified error(s) can be accepted by the EPA.

D) *Additional Quarterly Report Audits* - In addition to the automated data review and feedback described above, the EPA may subject quarterly reports to an electronic audit as a part of ongoing QA activities where additional rejection criteria are applied. If a report fails any of these additional criteria, the EPA may notify the DR and require resubmission of that report, and/or initiate a field audit. Note that resubmission will be required if the audit results indicate that there is a "significant" impact on the reported emissions (as defined in Section 2. Data Resubmission).

Examples of criteria that the EPA may apply during a quarterly report audit are:

1) Are the reported emissions or heat input data consistent (for example, does the sum of the EPA-calculated hourly SO_2 emissions for the quarter multiplied by the operating time equal the quarterly total SO_2 emissions value reported in RT301)?
2) Are the hourly SO_2 mass emissions calculated correctly from the appropriate data elements?
3) Are the hourly NO_x emission rates calculated correctly from the appropriate data elements?
4) Are the hourly heat input rates calculated correctly from the appropriate data elements?
5) Is the correct bias adjustment factor applied for every hour, where appropriate?
6) Have the required quarterly linearity tests been conducted, passed, and reported within the required amount of time?
7) Have the required RATA tests been conducted, passed, and reported within the required amount of time?
8) Have the required daily monitor calibration tests and flow monitor interference check tests been conducted and reported?
9) Has the required quarterly flow monitor leak check test been conducted and reported?
10) Are all monitors used to report emissions data certified?

11) If the quarterly report indicates that a recertification event occurred, were the test results submitted to the EPA?

Finally, the EPA may conduct periodic, independent field audits to assure compliance with Part 75 Continuous Emission Monitoring requirements. These field audits may include activities such as review of on-site records, CEMS inspections, and QA test observations. The EPA expects that when errors or deficiencies are discovered through the field audit program, appropriate corrective action will be taken independently of the quarterly review process described here.

After reviewing the results from these additional audits, the EPA may expand the automated rejection criteria (Status Code 6) or critical error criteria (Status Code 5) applied by the ETS software to include one or more new criteria and implement them in a subsequent calendar quarter.

2. Data Resubmission

As described above in the Data Review section, a source may need to resubmit a quarterly report to correct specified problems. A quarterly report resubmitted to the EPA replaces the previous submission in ETS and at a minimum will also undergo the automated Data Review processes described above. As a result, each resubmitted report must be complete; it must contain all the required data records for emissions, Quality Assurance/Quality Control, and monitoring plan data. Additionally, a resubmitted report must be accompanied by the Designated Representative Signature and Certification Statements, included in RTs 900/901 or in a hard-copy letter. If the resubmitted report passes all rejection criteria and critical error criteria and the problem(s) identified in the prior submission was also corrected, no further action is required by the DR.

Resubmission Procedures and Deadlines

During the 30-day quarterly report submission period following the end of each calendar quarter, a source that uses ETS-PC to submit its reports may revise and resubmit the reports for that quarter, as necessary, before the quarterly report deadline. As a result, most of the quarterly reports will pass all rejection and critical error criteria before the submission deadline. The remaining reports typically contain problems that caused the EPA to reject them, or they contain other significant inaccuracies identified by the EPA and/or source. These reports will need to be corrected and resubmitted to the EPA. Resubmission deadlines, including final quarterly report resubmission deadlines, are discussed below.

After the quarterly reporting deadline, a source must first contact the EPA before resubmitting a quarterly report so the EPA can determine whether the resubmission is permissible and prepare ETS to receive the resubmission. If the EPA has rejected the report, the source DR must correct the report and resubmit it by the deadline specified in the feedback, or resubmit it according to supplemental EPA guidance (for example, if the report was rejected during an audit). If a report contains critical errors or contains other significant errors identified by the EPA and/or source (as described below), the report must be resubmitted according to EPA guidance.

If the EPA and/or the source discover an error which impacts the emissions results, the EPA will determine whether the impact is significant and warrants correction of the emissions data through the resubmission of any or all of the quarterly reports for that calendar year. If a source discovers such an error the source may voluntarily inform the EPA and request that the EPA allow resubmission of the affected report(s). If the EPA approves the request, the source will be instructed to resubmit the quarterly report. As part of this process, the EPA will first consider whether the emissions data will be used for compliance determinations. For example, in the case of a unit where the SO_2 emissions data are used to calculate allowance deductions

for compliance with the Acid Rain Program emission limitation requirements, the EPA will require the source to correct the data if the error in the reported SO_2 value was greater than or equal to one ton. Some of the criteria used to determine whether a NO_x Budget quarterly report should be resubmitted to the EPA are as follows:

1) Are the reported SO_2 mass emissions correct within 1.0 ton or less?
2) Is the reported NO_x emission rate correct within 0.01 lb/mmBtu or less?
3) Is the reported heat input correct within 1000 mmBtu or less?
4) Are the reported CO_2 mass emissions correct within10.0 tons or less?
5) Are required quarterly linearity test data and results (RT601 and 602) reported and are they complete?
6) Are required RATA test data and results (RT610 and 611) reported and are they complete?
7) Are the required daily monitor calibration tests and flow monitor interference check tests reported and are they complete?
8) Was the required quarterly flow monitor leak check test reported and was it complete?
9) If a report was submitted via direct electronic submission and the Electronic DR Signature and Certification Statements (RT900 and 901) were submitted instead of a hard copy letter containing the DR certification and signature, are these record types correct, complete, and present?
10) Are the reported emissions or heat input data consistent (for example, the sum of the reported hourly SO_2 emissions for the quarter multiplied by the operating time does equal the quarterly total SO_2 emissions value reported in RT301)?
11) Is the quarterly report free of errors that EPA may determine will have a significant impact on the data quality?

As part of ongoing QA activities, the EPA may modify this criteria.

Final Quarterly Report Resubmission Deadlines:

To finalize the year-to-date emissions data as early as possible in anticipation of annual allowance reconciliation and compliance determination, the EPA has established the following final quarterly report resubmission deadlines for specified calendar quarters:

1st quarter 2000 - Resubmission Deadline: 07/31/2000

2nd quarter 2000 - Resubmission Deadline: 10/31/2000

3rd quarter 2000 - Resubmission Deadline: 12/29/2000

4th quarter 2000 - Resubmission Deadline: 03/30/2001

While the EPA will make every effort to assure that the current year's data are accurate, the EPA will not unilaterally change or correct submitted data without providing notice to the affected source. To the extent practicable, data reconciliation efforts, including resubmissions, will be made in cooperation with the source. Nonetheless, the responsibility to ensure the accuracy of the data submissions remains with the source.

3. Data Dissemination

All quarterly reports received by the EPA are maintained in a central database within ETS. This database is updated when quarterly reports are resubmitted. The EPA regularly extracts data from ETS for public

distribution and for annual allowance reconciliation and compliance purposes. Reports containing the preliminary quarterly and year-to-date summary emissions and related data are released to the public on a quarterly basis, approximately 30 days after the end of each calender quarter. Final annual summary emissions data are available approximately nine months after the end of the calendar year.

The summary reports and related data (including individual quarterly reports) can be obtained from the EPA's Acid Rain Program home page on the World Wide Web (http://www.epa.gov/acidrain/edata.html#agg).